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                 BEILSTEIN: Reload and Implementation of a New Subject Area
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                US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
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         Apr 19
                 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
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NEWS
         Apr 22
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         Jun 03
                 MEDLINE Reload
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                 saved answer sets no longer valid
                 Enhanced polymer searching in REGISTRY
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                 CANCERLIT reload
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                 PHARMAMarketLetter(PHARMAML) - new on STN
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                 NTIS has been reloaded and enhanced
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                 now available on STN
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
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         Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
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         Aug 19
NEWS 22
                 Sequence searching in REGISTRY enhanced
         Aug 26
NEWS 23
                 JAPIO has been reloaded and enhanced
         Sep 03
                 Experimental properties added to the REGISTRY file
         Sep 16
NEWS 24
NEWS 25
                 CA Section Thesaurus available in CAPLUS and CA
         Sep 16
         Oct 01
                 CASREACT Enriched with Reactions from 1907 to 1985
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                 EVENTLINE has been reloaded
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         Oct 21
                 BEILSTEIN adds new search fields
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         Oct 24
                 Nutraceuticals International (NUTRACEUT) now available on STN
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         Oct 24
NEWS 30
         Oct 25
                 MEDLINE SDI run of October 8, 2002
NEWS 31
         Nov 18
                 DKILIT has been renamed APOLLIT
                 More calculated properties added to REGISTRY
NEWS 32
         Nov 25
         Dec 02
                 TIBKAT will be removed from STN
NEWS 33
         Dec 04
                 CSA files on STN
NEWS 34
                 PCTFULL now covers WP/PCT Applications from 1978 to date
         Dec 17
NEWS 35
         Dec 17
                 TOXCENTER enhanced with additional content
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NEWS 37
         Dec 17
                 Adis Clinical Trials Insight now available on STN
NEWS 38
         Dec 30
                 ISMEC no longer available
                 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 39
         Jan 13
NEWS 40
         Jan 21
                 NUTRACEUT offering one free connect hour in February 2003
                 PHARMAML offering one free connect hour in February 2003
NEWS 41
         Jan 21
                 Simultaneous left and right truncation added to COMPENDEX,
NEWS 42
         Jan 29
                 ENERGY, INSPEC
                 CANCERLIT is no longer being updated
         Feb 13
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NEWS 44 Feb 24 METADEX enhancements NEWS 45 Feb 24 PCTGEN now available on STN NEWS 46 Feb 24 TEMA now available on STN

NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation NEWS 48 Feb 26 PCTFULL now contains images NEWS 49 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results

NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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L1 1 EP0927721/PN (EP927721/PN)

⇒ d l1 ibib hitstr abs

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:

1999:404974 CAPLUS

DOCUMENT NUMBER:

131:59020

TITLE:

Preparation of vitamin D derivatives with phosphorous

atoms in the side chains

INVENTOR(S):

Steinmeyer, Andreas; Neef, Gunter; Kirsch, Gerald; Schwarz, Katica; Wiesinger, Herbert; Haberey, Martin;

Fahnrich, Marianne; Langer, Gernot

PATENT ASSIGNEE(S):

Schering A.-G., Germany PCT Int. Appl., 105 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

 ${\tt German}$ 

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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APPLICATION NO. DATE
                 KIND DATE
    PATENT NO.
                                         -----
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                                        WO 1998-EP8137 19981216
    WO 9931112
                     A1 19990624
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            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
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                                       EP 1997-250374 19971217 <--
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    AU 9924134
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                                         EP 1998-966616 19981216
                           20001011
    EP 1042335
                      A1
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    JP 2002508383
                                      DE 1997-19758119 A 19971217
PRIORITY APPLN. INFO.:
                                      EP 1997-250374 A 19971217
                                                     W 19981216
                                      WO 1998-EP8137
OTHER SOURCE(S):
                      MARPAT 131:59020
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

GI

The invention relates to novel vitamin D derivs. I [Y1 = H, OH, F, Cl, Br, AΒ O2CR5; Y2 = H, COR6; Y2O = .alpha.- or .beta.- bond; R1, R2 = H; R1R2 = CH2; R3, R4 = H, Cl, F, C1-4-alkyl; R3R4 = CH2; R3R4-C(20) = satd. or unsatd. C3-7-cycloalkyl; R5, R6 = C1-12-alkyl, aryl; VW = bond; V = W = OH; V = OH, W = H; X1, X2 = H, OH, OR7, O2CR7, PO(OR8)2, PO(NR82)2, PO(R8)2, OPO(OR8)2, OPO(NR82)2, OPO(R8)2, CH2PO(OR8)2, CH2PO(NR82)2, CH2PO(R8)2; R7 = C1-12-alkyl, aryl; R8 = H, C1-12-alkyl, aryl;; X1X2 = 0;n = 0, 1; E1 = PO(OR9)2, PO(NR92)2, PO(R9)2, CO2R9; R9 = H, C1-12-alkyl, aryl; E2 = PO(OR9)2, PO(NR92)2, PO(R9)2, CO2R9, F, C1, Br, H, C1-12-alkyl, aryl; Q = H, C1-12-alkyl, aryl, OH, O2CR10, F, C1, Br, NH2, NHR10, N(R10)2; R10 = C1-12-alkyl, aryl; X1E2 = bond, X2 = H, OZ; Z = HC1-12-alkyl, aryl, C1-12-acyl, aroyl, E2; X1X2E2Q = triple bond], a method for their prodn., intermediate products of the method as well as their use in producing medicaments. Thus, vitamin D analog II was prepd. from aldehyde III (TBDMS = SiMe2CMe3), via photochem. E/Z-isomerization, Horner-Emmons reaction with (MeO) 2P(O) CH2CO2Me, condensation of unsatd. ester IV with MeP(O)(OMe)2 and desilylation with Dowex ion-exchange resin. II has an affinity for calcitriol receptors (competition factor = 10) and shows differentiation induction for HL-60 cells [DR50 = 22] and hypercalcemia induction [DR50 = >>100].

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